

Claims

What is claimed is:

1. A system for securely exchanging information between systems comprising:
a requesting system coupled to the Internet from which a user requests
assistance from a support representative wherein said user utilizes a standard Web
browser client to request said assistance;

5 a support representative system coupled to the Internet from which a support
representative responds to the requesting user to provide assistance; and

10 a collaboration server system coupled to the Internet and accessible to both
said requesting system and said support representative system for receiving a
request for assistance and for processing said request for assistance wherein said
collaboration server system includes:

15 a rendezvous service, responsive to receipt of said request for
assistance, to initiate communications via the Internet between said
requesting system and said support representative system regardless of the
presence of firewall protection in said requesting system; and

an interaction service for managing continued interaction between said
support representative system and said requesting system regardless of the
presence of firewall protection in said requesting system.

2. The system of claim 1 wherein said rendezvous service includes:

a support representative locator for locating an appropriate support
representative to respond to said request for assistance.

3. The system of claim 2 wherein said support representative locator includes:
rendezvous rules; and

a rules evaluator for selecting said appropriate support representative in
accordance with said rendezvous rules.

4. The system of claim 1 wherein said requesting system includes:

a support proxy for receiving from said interaction service a response to said

request for assistance.

5. The system of claim 4 wherein said response is generated by said support representative system and transmitted to said interaction service.
6. The system of claim 5 wherein said response includes:
an operational module to be loaded and executed on said requesting system.
7. The system of claim 6 wherein said support proxy loads and executes said operational module.
8. The system of claim 6 wherein said operational module includes:
a digital signature for verifying the origin of said operational module.
9. The system of claim 8 wherein said support proxy verifies the integrity of said operation module using said digital signature.
10. The system of claim 9 wherein said digital signature uses a key of at least 128 bits.
11. A collaboration server system for securely exchanging information between a requesting system and a support representative system, said collaboration server system comprising:
 - 5 a rendezvous service, responsive to receipt of a request for assistance generated by a Web browser client operating on said requesting system, to initiate communications via the Internet between said requesting system and said support representative system regardless of the presence of firewall protection in said requesting system; and
 - 10 an interaction service for managing continued communication between said support representative system and said requesting system regardless of the presence of firewall protection in said requesting system.

12. The system of claim 11 wherein said rendezvous service includes:
a support representative locator for locating an appropriate support
representative to respond to said request for assistance.
13. The system of claim 12 wherein said support representative locator includes:
rendezvous rules; and
a rules evaluator for selecting said appropriate support representative in
accordance with said rendezvous rules.
14. The system of claim 11 wherein said collaboration server system includes:
a support proxy operable in said requesting system for receiving from said
interaction service a response to said request for assistance.
15. The system of claim 14 wherein said response is generated by said support
representative system and transmitted to said interaction service.
16. The system of claim 15 wherein said response includes:
an operational module to be loaded and executed on said requesting system.
17. The system of claim 16 wherein said support proxy loads and executes said
operational module within said requesting system.
18. The system of claim 16 wherein said operational module includes:
a digital signature for verifying the origin of said operational module.
19. The system of claim 18 wherein said support proxy verifies the integrity of
said operation module using said digital signature.
20. The system of claim 19 wherein said digital signature uses a key of at least
128 bits.

21. A method for communicating between a requesting system and a support representative system comprising the steps of:

receiving within a rendezvous service operable in a collaboration server system a request for assistance from a Web browser client operable in a requesting system;

initiating a communication link between a selected support representative system and said requesting system through an interaction service operable in said collaboration server system; and

10 exchanging information between said requesting system and said selected support representative system through said interaction service to permit said selected support representative system to automatically receive information from said requesting system to enable resolution of said request for assistance,

wherein the method is operable regardless of the presence of firewall protection on said requesting system.

22. The method of claim 21 wherein said requesting system includes a support proxy module and wherein the step of exchanging information includes the steps of:

transmitting a support request from said selected support representative system to said interaction service;

5 forwarding said support request from said interaction service to said support proxy module as a response to a previously received result request from said support proxy module;

transmitting a result request from said support proxy module to said interaction service in response to receipt of said support request in the form of a 10 response; and

forwarding said result request from said interaction service to said selected support representative system as a response to a previously received support request from said selected support representative system.

23. The method of claim 22 further comprising the steps of:

embedding an operation module in said support request prior to transmission

of said support request; and

embedding results obtained from said operation module in said result request
5 prior to transmission of said result request.

24. The method of claim 23 further comprising the step of:

executing said operational module within said requesting system to produce
said results for embedding within said result request.

25. The method of claim 24 further comprising the step of:

verifying the integrity of said operational module prior to execution of said
operational module.

26. The method of claim 25 wherein the step of verifying includes the step of:
using a digital signature to verify the integrity of said operation module.

27. The method of claim 25 wherein the step of verifying includes the step of:
using a digital signature key of at least 128 bits to verify the integrity of said
operation module.

28. The method of claim 21 wherein the step of initiating includes the step of:
selecting said selected support representative system from among a plurality
of support representative systems.

29. The method of claim 28 wherein the step of selecting includes the step of:
selecting said selected support representative system from a plurality of
support representative systems in accordance with rendezvous rules.

30. A method for communicating between a requesting system and a support
representative system through a collaboration server system comprising the steps
of:

receiving in said collaboration server system a login request from said support

- 5 representative system identifying a support representative as available for handling requests;
- indicating that said support representative is available in response to receipt of said login request;
- 10 receiving in said collaboration server system a support request from a requesting system requesting assistance;
- selecting said support representative from all service representatives indicated as available;
- 15 embedding said support request within a login response associated with said login request;
- transmitting said login response from said collaboration server system to said support representative system as a login response to said login request;
- receiving in said collaboration server system a diagnosis request from said support representative system wherein said diagnosis request includes an embedded operational module;
- 20 transmitting said diagnosis request from said collaboration server system to a support proxy module operable in said requesting system as a support response to said support request;
- executing said operational module within said requesting system to generate diagnostic results;
- 25 receiving in said collaboration server system a results request from said support proxy module with said diagnostic results embedded within said results request; and
- transmitting said results request from said collaboration server system to said support representative system as a diagnosis response to said diagnostic request.